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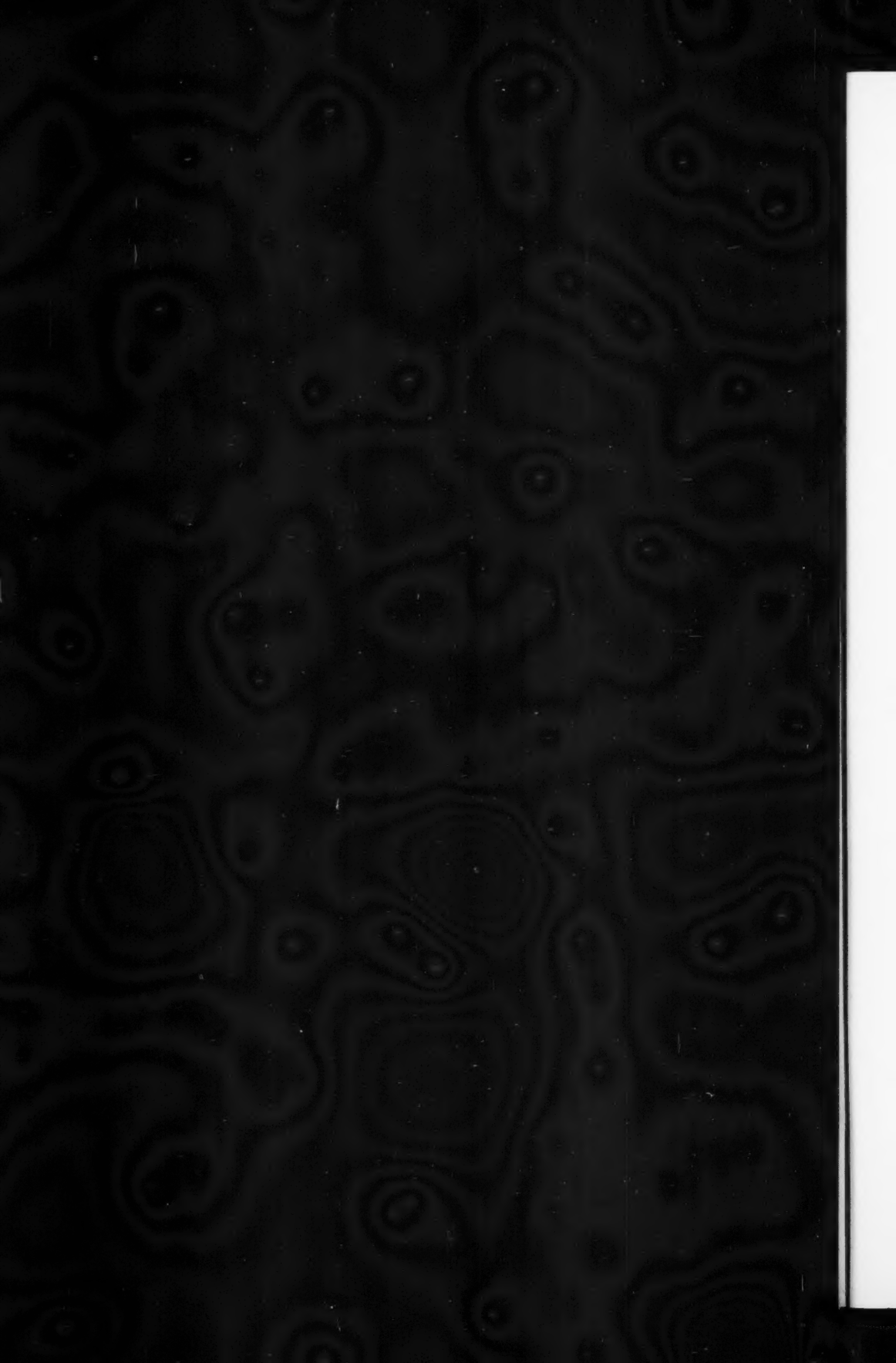
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Robert L. Taylor

Philadelphus, ATLAS

Philadelphus Notes

*The Lemoine Hybrids**

JOHN L. CREECH

The majority of named mock-oranges that appear in American nursery catalogs were introductions from France. As far back as 1894, hybrids originated by the French horticulturist, Lemoine, began to dominate the *Philadelphus* collections in French nurseries. These early selections were periodically supplemented by new ones, some listed as late as 1925 and 1926. It has not taken the American growers long to accumulate the bulk of these varieties, and at present, Standardized Plant Names lists 42 named varieties, credited to the Lemoine establishment, that can be purchased in one nursery or another.

Since they are all hybrid selections, the parentage of which is somewhat doubtful, but originating from one source, it is a proper group to discuss collectively. Furthermore, even though the flowers are limited to white in color (one group does have a purple spot) there is a good range in size, flower shapes differ and there are both single and double varieties. Consequently, there is an opportunity to express individual desires when buying plants. The object of this paper is to discuss these hybrids, some of which may be unfamiliar to the reader, and to stimulate the wish to include such varieties in plantings.

Cultural requirements are the same for the Genus *Philadelphus* as a whole. Although some species, *P. coronarius* in particular, will tolerate some shade, for the Lemoine hybrids a sunny posi-

tion is better. They are best displayed as specimen plants or as part of a border planting. I would be disturbed about using them in a foundation planting and would prefer to see them placed in a portion of the garden where interest can be directed during flowering time and where they can be bypassed quietly when out of season, for, at this time, they are rather ungainly. I cannot condone their being used for hedge material. The main attraction is the flowering period and they certainly do not fulfill any of the requirements for a good hedge.

As with many deciduous woody shrubs, they are rather casual in their habit and are easily pruned by the removal of the largest branches to the base. An occasional rejuvenation will keep the plant within the desired bounds.

The varieties are hardy in most of the United States. One exception to this is the purple spot group that has a Mexican species as one parent to limit it somewhat. I have noticed that plants growing in regions where there is a definite snappy fall gradually turning into winter are more thrifty than the same varieties growing farther south. In the vicinity of Washington, D. C., a hot dry August causes the leaves to drop and the plants to approach dormancy. Then when the fall rains come with cool pleasant weather, there is a flush of growth that is cut down by the first frost whose killing effect seems to penetrate well down the stem. Consequently, there is quite a job each year removing this dead wood. Perhaps a heavy summer mulch that would help

*The collection of plants on which this material is based was made by Claude Hope, and is a continuation of his intentions.

retain the moisture in the soil might be beneficial.

Flowering varies with the locality. At Glenn Dale, Md., it occurs anytime between May 6 and June 6 depending on the varieties. The Lemoine hybrids do not flower as early as some of the true species, but in this unusual year, the early were late and came in with the ordinarily late varieties, shortening the season. How advantageous such an off season is for the breeder wishing to cross forms not flowering together in a normal season!

I followed the flowering season north, and at the Arnold Arboretum, the season was about one month later, with few of the varieties in flower in mid-June, but there too, the season was late this year.

The best place to see the flowers is on the plant, as they are poor for cutting; they shatter soon after the branches are cut and it was impossible to hold them even overnight for photographing. They do add an attractive fragrance to a room when used judiciously in other arrangements.

Perhaps the most orderly manner of discussing the different varieties is to begin with those that represent the earliest cross. These are optionally placed together under the name $\times P. lemoinei$. The selections of this cross have mostly small leaves and very fragrant flowers. Those included are in the writer's personal opinion the better varieties.

COUP D'ARGENT (1916) selected because of its fine habit. The branches arch gracefully and the large flowers are borne mostly solitary and have golden anthers. They are also heavily fragrant. The plants are hardy, flowering about May 25.

ENCHANTMENT (1924) is an erect but loose plant with compact clusters of double white flowers 1" across

but not fragrant. It is similar to BOUQUET BLANC. The season is June 1 or thereabouts. Very hardy. A variety ENCHANTRESS is identical and may be a trade-name error.

FLEUR DE NEIGE (1916), an early variety with flowers almost as white as those of ATLAS. The plant is broader than tall reaching about ten feet, drooping with compact racemes. The flowers are 2" across with oval petals having ragged edges. It is very hardy. Flowers about May 20.

INNOCENCE (1927), interesting because plants at Glenn Dale and at the Arnold Arboretum showed signs of variegation in the leaves in the early part of the season. This disappeared as the year progressed and the new leaves do not show such an effect. I have been told that the hot brilliant sun of mid-summer causes variegations in the leaves to disappear in some plants. Such may be true of this one. The flowers are single, some showing one or two extra petals, very fragrant and very profuse in number, borne on long branches. It does not seem to be a very vigorous variety, reaching 5-6 feet.

PYRAMIDALE (1916) resembles the well-known VIRGINAL in flower but has much larger leaves. The densely clustered flowers are cup-shaped, 1½" across and heavily scented. It is hardy, blooming May 25.

As with most groups of hybrids, there are some selections that seem quite similar to all others than the person making the selections; a number exist in this group. MONT BLANC (1896), MANTEAU D'HERMINE (1898) and CANDELABRE (1894) are quite similar to GERBE DE NEIGE (1894). All are erect spreading plants, GERBE DE NEIGE attaining a height of 15 feet and showing no signs of winter injury. The flowers are star-shaped, opening flat,



Robert L. Taylor

Philadelphus, ALBATRE



John L. Creech

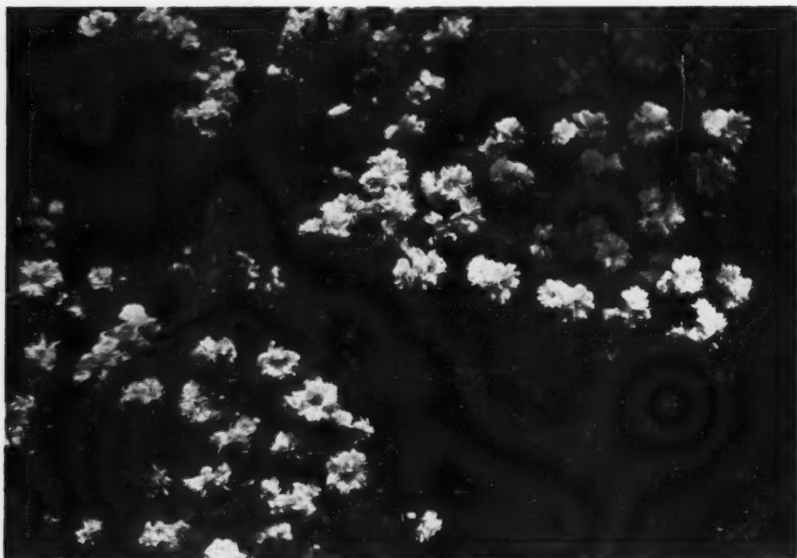
Philadelphus, ARGENTINE



John L. Creech

Philadelphus, BOULE DE NEIGE

The upright habit is typical of some hybrids.



U.S.D.A.—Bisset

Philadelphus, ARGENTINE. Note the loose spreading habit.

pure white with petals notched at the apex. ERECTUS and MME. LEMOINE (unlisted) are also similar to varieties in the above group.

It is not difficult to imagine the next step taken after obtaining such fine selections from the original breeding. It was to use these as parents in breeding with other species. The exact parentage combinations are not at all clear but a range of forms evolved. These were grouped as four hybrid types, $\times P. cymosus$, $\times P. polyanthus$, $\times P. purpureo-maculatus$, and $\times P. virginialis$.

$\times P. cymosus$ consists of mostly large-flowered forms that have only slight fragrance and a rather erect habit.

ATLAS (1924) has the largest flowers of the entire group, sometimes measuring up to $2\frac{1}{2}$ " with round overlapping petals that make the flowers

look like white pinwheels attached to the plant. There are usually four petals and the flowers are only slightly fragrant. The plant is very vigorous and hardy. One of the best selections.

BANNIERE (1907) is the first of the hybrids to bloom; the flowers in racemes of one to five and not as large as ATLAS, but some are 2" across. The plant has a more spreading habit than ATLAS and the flowers are both single and semi-double, although our plants had five petals at most. It does not seem quite as vigorous or as hardy as ATLAS. It flowered about May 20.

NORMA (1914) rated the Award of Merit from the Royal Horticultural Society and justly so. The plant is erect and spreading, and very hardy. The flowers are at least $1\frac{1}{2}$ " across in groups of five, well distributed over the plant. They are single and without odor, the petals oval-shaped,



John L. Creech

Philadelphus, BOULE DE NIEGE



Robert L. Taylor

Philadelphus, BOUQUET BLANC



John L. Creech

Philadelphus, FAVORITE

notched at the apex and ragged-edged. The flowers were fully opened about May 28.

VOIE LACTEE (1921) is very distinct in its flower form. The plant is erect, vigorous and hardy. The flowers mostly in 1-3 flowered cymes are 2" across with peculiarly reflexed petals that give the flowers character. The anthers are golden against the milky petals. The leaves are deep green and glossy. It flowered along with NORMA.

Of the varieties that are similar to others, MER DE GLACE (1900) has been mentioned as being very close to ENCHANTMENT, but lacks the fragrance. NUEE BLANCHE and PERLE BLANCHE (both 1900) can be compared to the variety GLACIER (1914), which is classified as a clone of $\times P. \text{virginalis}$. The plants are erect, with 7-11 flowered cymes of cream-white flowers, single and semi-double, golden anthers and moderately fragrant. SAVILOS (not listed) is identical with this group.

FAVORITE (1916), listed as $\times P. \text{polyanthus}$, is quite distinct in that the flowers remain tulip-shaped, never opening flat, usually solitary and not much over 1" in size. They appear quite late, perhaps June 1.

GERBE DE NEIGE (1894), also listed as of this group, has been fully covered in the discussion of similar varieties. (See MONT BLANC.)

$\times \text{Philadelphus virginalis}$ covers the most double hybrids in the collection.

ARGENTINE (1914) is the most fully double. The plant is rather loose and the heavy flower clusters bend the branches to the ground. The flowers are full double, in dense clusters and heavily scented; some are nearly 2½" across. This one is one of the best, and is quite hardy, the photograph by Bis-

set having been taken at Rochester, N. Y.

ALBATRE (1914) is an erect plant but produces a number of branches from the base, giving body to the plant. The flowers, 1½" across, are single and very fragrant. They are mostly seven-flowered racemes in excellent quantity. The plant is quite hardy, flowering about May 25.

BOUQUET BLANC (1903), an erect loose variety, blooms early, about the same time as BANNIERE and the very compact flower clusters give it the appearance of a Deutzia at a distance. The flowers are only 1" across but profuse on long branches and very fragrant. It is not a vigorous plant but seems fairly hardy.

GLACIER (1914), similar to NUEE BLANCHE, has been covered in the discussion of that variety; it differs from BOUQUET BLANC in being more erect and having larger flowers.

VIRGINAL (1909) is well known in the United States and many people have used it as a standard in evaluating new varieties. Its very heavily scented, cup-shaped flowers are about 2" across and similar to those of PYRAMIDALE. Our plants have not been too thrifty and those at the Arnold Arboretum appeared to be in a similar state. Elsewhere, plants were in excellent condition with a good flower crop.

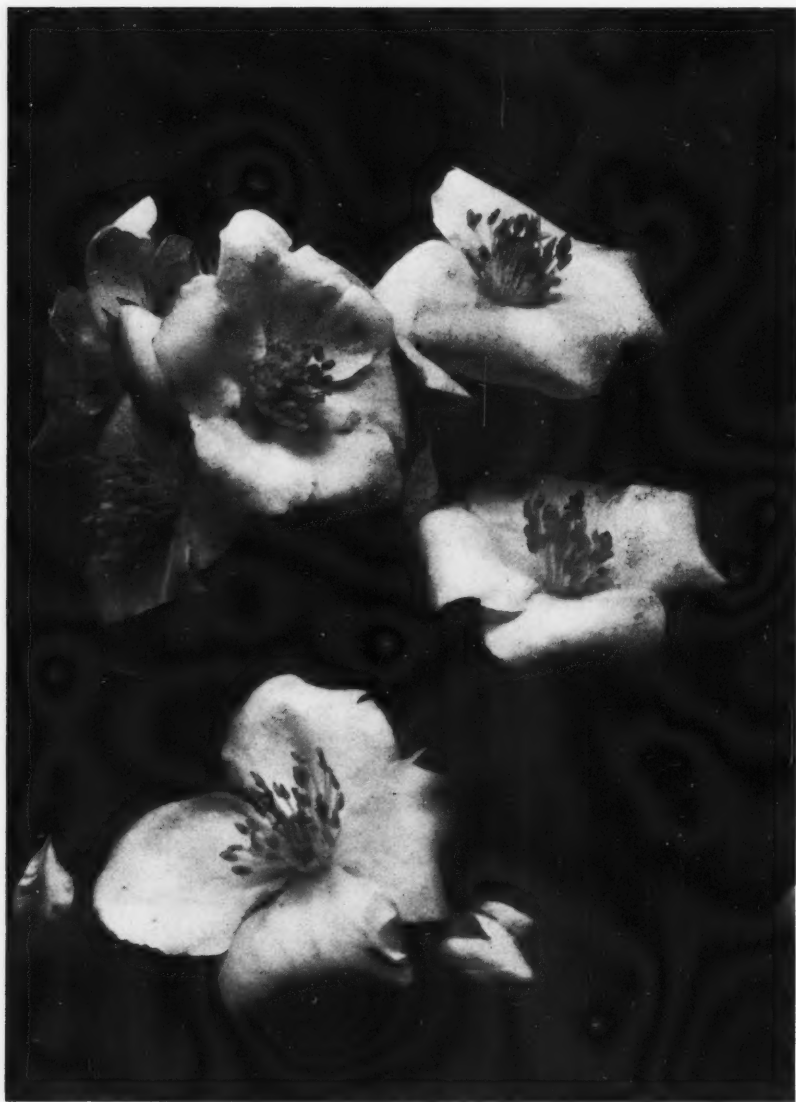
The selections covered by the name $\times P. \text{purpureo-maculatus}$ have not been too consistent, varying considerably in hardiness and trueness.

AMALTHEE (1924) and SYBILLE (1914) are quite hardy but did not offer sufficient in the way of flowers to make a judgment fair. From past records, AMALTHEE has flowers about 1½" across, usually in three's with a faint purple spot at the base of



John L. Creech

Philadelphus, NORMA



John L. Creech

Philadelphus, VOIE LACTEE

each petal, and is only slightly fragrant. The flowers are single with golden anthers. SYBILLE (1914) is erect and quite vigorous, and flowers are 2" across, single with the purple spot on the petals, and heavily scented. The plant is quite hardy. Both had a few flowers open by June 1 but rather a poor showing.

As is bound to happen when a collection is attempted, plants come in not correctly labeled. Our plant of SI-RENE (1910) is identical with VOIE LACTEE and could not be mistaken for any other. There is no purple spot present, although there should be since it is placed in this section. OPHELIA (1916) is a similar case and bears no resemblance to the description for the type $\times P. \textit{purpureo-maculatus}$. OEIL DE POURPRE (1914) and NUAGE ROSE (1916) are killed back yearly and the plants are in no condition to be judged.

One variety unlisted that merits attention is BOULE DE NEIGE. It is similar to NORMA in habit but has larger flowers that are distributed over the entire plant. The flowers have mostly five and six petals in excellent trusses. It is both hardy and vigorous.

Such is a review of the many Lemoine hybrids. Perhaps a preference listing is unjust but this is how they appeal to me:

1. ARGENTINE — because of its full double flowers.
2. ATLAS — only a biased person would not admit that the extreme-

ly large flowers give this one a top position.

3. NORMA — because it is so hardy and vigorous, bearing an excellent flower crop.
4. COUP D'ARGENT — because it has a good habit and large solitary flowers.
5. VOIE LACTEE with its reflexed petals is unique; one would not regret owning this one.
6. VIRGINAL or PYRAMIDALE with their pure-white cup-shaped flowers and heavy fragrance.
7. NUEE BLANCHE, GLACIER or BOUQUET BLANC because of the profusion of small ivory-white flowers.
8. BOULE DE NEIGE has heavy trusses of large white flowers so well distributed. This one would be difficult to obtain at present.
9. FAVORITE with its tulip-shaped flowers is well worth having; the plant is compact and low.
10. INNOCENCE because it is quite fragrant, compact and has the tendency towards variegated leaves in the early season.

One experienced with the Genus *Philadelphus* will realize that there are a number of pure species that have as excellent qualities as the group of Lemoine hybrids, some blooming before any of those mentioned and others later. A discussion of these would be necessary to complete the Genus and such a supplement is contemplated at a future date.

Daffodils In Upper South Carolina

SARAH STACEY BUTLER

Certainly in all my sixteen years of gardening in South Carolina I can think of no year less typical than the winter and spring of 1946-47 has been. Our climate here in the Piedmont section of the State is usually an ideal one for flower growing. We have a short, though quite cold winter season, and by February warm days come along often enough to bring spring gardens into full bloom before the last of March. This year bulbs have suffered more from the adverse weather conditions than anything else has, but the Daffodils have come through amazingly well. Indeed, this may be the best year of all in which to write a resume of their progress. Bulbs which have continued to thrive in the face of the beating they've taken the past six months, surely will grow happily under any conditions. A long, very warm, dry fall brought the foliage of many varieties above ground before Christmas, and the effect of this drought was noticeable in the shortness of many stems during the blooming season. Buds were well up in January when the first ice storm struck us. Two hail storms in early March did more damage, of course, than all the snow and ice we had during February. Then on March 25th, when blossoms were just coming out in any quantities, we encountered a 74 mile an hour wind which I was sure would finish them all off. I felt quite proud next day when I walked about to survey the damage to find all the blossoms lifting their heads and only two snapped stems in the whole lot—one of these, disappointingly, was in a clump of Fortune's Champion which, when I see it in

bloom, I am sure is my very favorite. The other was Aubrey which surprised me, due to the fact that stems of this variety are never tall, but seem sturdy and firm. However, it is amazing that my Daffodils withstood wind of that velocity at all, because they are all situated in a northeastern location which has little protection. The entire season has been freakish, and has made the bulbs act accordingly—some that usually bloom midseason or late bloomed early; some of the earliest varieties lagged way behind. Malvern Gold, which ordinarily comes along from the 2nd to the 9th of March, bloomed in profusion on February 12th, and for three days thereafter was buried in snow. This variety has been continuously satisfactory for me—some clumps which have been left undivided for three years produced eight to ten blooms of the same high quality as their first year in my garden.

I am convinced that the very thick mulch of pulverized redwood bark over all the Daffodil beds has been of particular benefit this past year. It seems ideal to use with our heavy clay soil. For the past three seasons it has been spread on heavily as a top dressing in the early fall, then turned under the following February. Before that time I used peat. Either of these is a very necessary protection through our long, hot summers, keeping the clay soil wonderfully loose and holding moisture splendidly. Another satisfactory summer mulch for us is ground corncobs. I plant my bulbs in well spaded soil on a bed of sharp sand with bonemeal mixed in. The usual three feedings a year and an occasional soaking dur-

ing dry spells is about all the care I give them for they are grown purely for personal enjoyment, and my enthusiasm for working with them wanes, I admit, when temperatures range from 85° to 95° over a period sometimes as long as five months.

Next to the *Incomparabilis* class, the yellow and white trumpets grow most successfully in this section—we are especially blessed because very few of our daffodils are bothered with disease. I have never had but one variety suffer from mosaic. This is *Statendam* which has been killed repeatedly. I have reordered it for three years, planted it in a new location each time and the same thing happens again. It is of not enough distinction to justify continued bother, but I hate to be “stumped.” However, when this past spring it was the same old story, I finally surrendered.

Occasionally the foliage of two or three varieties suffers from stripe, but a bit of nursing has always pulled them back to normal for me.

David Griffiths is a yellow trumpet which has done particularly well in my garden. It is a fine flower of beautiful form, clear golden yellow throughout, and the long trumpet nicely frilled around the mouth. I was disappointed in length of the stems this year, but I attribute that, of course, to the warm dry fall. Heretofore it has been entirely satisfactory. It multiplies freely and retains its fine quality.

Babylon Majestic, a bulb whose origin is unknown to me, is a good performer, and would be a joy to anyone who admires the yellow trumpets. It is a large flower of excellent texture, bright golden yellow, with a long trumpet and a beautiful wide pointed perianth. The foliage is broad and thick, and the stems quite tall enough to car-

ry the large crown in good balance. The short, firm neck holds the flower high. It lasts an exceptionally long time in the garden.

Youth is a nicely proportioned bloom with a medium sized perianth, clear yellow throughout. Heads are held high on tall stems. It does not increase as rapidly as most in this division.

Principal, while not as large as some, has finer form and smoother texture than most trumpets. I've had a little difficulty carrying it, but this year it seems to have become established and performed most satisfactorily. It has a beautiful long slim bud, and blooms clear yellow.

Honey Boy's beautiful flower, proudly held on stiff necks, is spoiled by its short stems, but it is a rapid increaser. Fantin Latour is another one of the giants with poor stems. MacMahon, Unsurpassable and Golden Harvest fare better — they are tremendous blooms on tall firm stems. Harold Beale is tall and showy, built somewhat on the lines of Van Waveren's Giant which I have lost repeatedly. Neither have I been able to carry Diotima, Sassenheim's Giant, Forerunner nor Cleopatra. Advance Guard, Aerolite, Golden Sunrise, Kimberley, Olympia, Minister Thalma and Magnificence have been among the bulbs I've had to nurse—they don't seem to thrive too willingly in this section. His Excellency is a joy—its long trumpet and pointed perianth of butter yellow make it a very striking flower. It seems entirely unaffected by any of the weather extremes it has been through during the past year, and it is a rapid increaser for me. Goldbeater and Golden Flag multiply beautifully—the good form and stiff necks of the latter are attractive. Kandahar, Fortress and Dawson City increase slowly, but are well worth having here, particularly Fortress with

its deep yellow trumpet, beautifully overlapping perianth, and tall strong stems. The texture and erectly held heads of King of May are lovely. Lord Wellington is one of the most beautiful in this class, I think—it is larger than King Alfred, and blooms about mid-season. Liberty, Alasnam, Warwick and Aubrey I care little for, and would never reorder. Tresserve continues to be a pleasure year after year. The First and Winter Gold, both supposedly quite early bloomers, come along during the first week of March in this locality. Bright, big Robert Sydenham multiplies quite slowly for me. Ben Hur increases slowly, too, but I like it especially well for its quite long and fairly narrow trumpet. Alaska is much more graceful than most of the giant trumpets. John Farquhar, a first year plant in my garden, shows promise of being most satisfactory. It has good short necks and the stems stand well above the excellent foliage.

Among the white trumpets, it is difficult to know where to begin. They seem to grow particularly well here. I believe I have lost only three varieties I've ever had in this division—Stresa, Askelon, Eskimo, all three of which I shall try again this fall. Alice Knights is generally the first to bloom in this area—it came along this year the 12th of March, and is still one of the most appealing among the inexpensive varieties. China Clay is one of my favorites; the long narrow cream trumpet changes beautifully to pure white, and the whole flower looks like marble. It is of much smoother texture and more perfect form than Beersheba, and both of them increase rapidly and bloom freely. Similar to Beersheba, but more creamy and with a smoother perianth, is Corinth—the substance of the perianth is very heavy, almost cardboard like, and the trumpet is long and slender. The stems

are about the same height as the foliage. I have had Corinth for three years, and while it has never multiplied to any extent, it is a most outstanding flower. Cokefield, larger than most, has a magnificent wide cream perianth and a slim, lovely trumpet which blooms lemon, but changes to pure white. This is a most elegant white trumpet with tall thick stems. White Australia, a two year plant in my borders, has never grown very tall, though the stems stand well above the foliage—it is not one of the larger trumpets, but is in very good proportion. It has multiplied slowly. This is true, too, of Kantara, the flower of which I think is lovely, though the stems are much too short for correct proportion. The large pure white flower is faintly pinkish yellow at the base of the cup, fading to white—it is of wonderful substance and texture, though not so refined as Beersheba. A day or so after blooming, the perianth becomes slightly reflexed and slightly wavy, most unusual form for a white trumpet. Pearl Harbor is quite distinctive from all other white trumpets. It is bold and showy, but possesses refinement and beauty. The perianth is from 4" to 5" across, flat and of much substance. The flaring frilled trumpet is long and imposing, but not out of balance. It opens pale lemon, but fades to white. While only a first year plant, it promises to be one of good constitution. The foliage is very broad and a cool grey green. Octavianus is another with broad, beautiful foliage—its big wide frilled trumpet opens a clear butter yellow, the perianth a shade paler—both fade to a pale cream. It is a large flower of excellent proportion. Phantasy is much smaller, a dainty, long lemon trumpet flaring decidedly at the mouth, and an almost white perianth—a very refined bloom, slow to multiply. Oh, how I wish that Moray had taller

stems! I believe it is one of the most distinctive blooms I ever saw with a wide pure white perianth and a very long straight trumpet of palest lemon tinged faintly salmon at the base. It all changes to pure white in a day or so, and has the most amazing keeping qualities in the garden. In spite of its having stems too short to balance such a large proud flower, it shall always be on my list of most favored varieties. I lost it several years ago, but since being replaced, it seems to have become well settled and a vigorous plant. Ada Finch has been a stand-by for a long time, never increasing much, but holding its own from year to year. The stems are sturdy and tall, the bloom big and heavy. I feel the perianth is a bit weak for such a large, wide trumpet and it is not as smooth and refined as Beersheba, yet it is still a handsome flower. Gaza was a great disappointment this spring. It has never been a robust grower for me, but I have attributed that to the fact that it was one of a number of Eastern grown bulbs I once bought, which have never been as successful for me as those bulbs from fields in the Northwest. This has proven true from year to year, both with daffodils and with roses—the Western grown plants carry beautifully in our locality, while those from Eastern growers fail time and again. I have managed to hold on to Gaza, but the stems this year were a bare six inches tall and the bloom far below par. Western grown bulbs of Gaza here in a friend's garden have produced lovely tall stems and large blooms of wonderful texture. Imperator and Roxane can be counted on year after year, and both are striking flowers, though of course Imperator has far superior stems. Roxane outlasts any of the white trumpets I have, and La Vestale, which lacks refinement, is a good keeper also,

staying in good condition for two full weeks as a rule. The warm days, coming so suddenly after the late cold spring and bringing strong dry winds, were terrifically hard on the daffodils this year—some of my most prized blooms retained their good quality only two or three days. Mrs. E. H. Krelage and Queen of Denmark bloom about the same time—both are dependable, but Queen of Denmark increases much more slowly, and its stems and texture can't compare with those of Mrs. Krelage. Milo is a dainty thing, a bit unusual due to the tinge of green at the base of its frilled cup. Quartz is a satisfaction, quick to increase and of good texture and proportion. Silver Glory I find must never be left undivided more than two years, else it will unfaithfully all go to foliage—it is a charming flower which I enjoy in the house as well as outdoors. President Carnot, White Emperor and Trappist have done too poorly for me to bother with any longer.

The bicolor trumpets I have difficulty with—I know that they are less hardy than the other trumpets in any section of the country, but they have always given gardeners around upper South Carolina a great deal of trouble—possibly our clay soil and hot dry summers disagree particularly with this division, but I keep trying them, for the color contrast is charming, and they show up to such good advantage planted in with other types. Quip I am very fond of, and after three years it looks strong and healthy and has begun multiplying quite nicely. It's coloring is really beautiful, most unusual and striking. I think the straight, medium sized trumpet opens a very deep gold, which color spreads into the creamy perianth—in a day or so the color of the cup intensifies until it becomes a rich orange and doesn't fade at all.

Though not one of the taller varieties, the bloom and stem are of excellent proportion and nice texture. President Le Brun, among the earliest of the bicolors to bloom here, I have had for several years and been successful with. It is a beautiful show variety, the perianth of which is nearly bone white, and the long slender trumpet has a slight touch of orange. It has increased quite slowly, but retains its high quality of bloom. Carmel blooms late and is a flower of faultless form. Duke of Bedford, Victoria and Conqueror have been planted twice, but have never come up. Findhorn I worked with for a long time before learning that growers as well as amateurs like myself feel that it is especially subject to basal rot and not at all vigorous. Gracieuse is one of the best performers I have—it has sturdy stems, straight stiff necks and beautiful broad silvery green foliage. It is large and of excellent substance and the golden yellow trumpet is of leather-like texture, the perianth pure white, and the whole flower very lasting. Spring Glory I can carry by the hardest, but Glory of Sassenheim, which is almost exactly like it, and blooms one or two days later, seems better adapted and happier in my garden. Golden Beauty, the very last of the bicolors to bloom, is a strong sturdy plant, with about the richest coloring to be found in the long trumpets. It is a rapid increaser and free bloomer. Queen of Bicolors, while only a second year clump, shows much promise—its buds stand perfectly straight up before blooming and the matured blossoms look you in the eye. I like the butter yellow cup widening at the mouth, and the flat creamy perianth with some yellow showing at the base of the cup. It is thick and leathery in texture. This has increased fairly well, and seems sturdy and healthy. Sir Henry Deter-

ding, a quite large flower of nice proportion, has about the best stems of the whole lot and blooms late when most of the long trumpets are over. I shall be very much pleased if it continues to perform as successfully as it has for the past several years. Madam Van Waveren and Silvanite I have definitely discarded—I can hold neither of them from one year to the next. Lovenest blooms on and on, never prolifically, but each plant can be counted on for two or three blossoms. Clumps which I divided years ago and replanted along the outer edges of my rose beds and which never receive the summer mulching and regular feedings that the other daffodils do, seem to bloom more freely and with better stems than the more gently nurtured bulbs. I have found this true also in the case of Fortune and of Mrs. R. O. Backhouse—unaccountably, they seem happiest left alone to shift for themselves. One more good performer among the bicolor trumpets is Jefta—it is quite an excellent increaser of nice form and lovely foliage coming into bloom in midseason, March 17th this year. Taken as a whole, the bicolors do less well for us than any other division with the exception of the rock garden species.

The Incomparabilis class really forms the backlog of my collection—they are extremely satisfactory, and I have accumulated enough varieties to have many blooming at a time during the entire season. Their performance is most gratifying. Malvern Gold, as I mentioned before, really got too smart by blooming way ahead of schedule and becoming snow bound. It was almost a full month afterwards that Whiteley Gem put in an appearance on March 17th. Some of my bulbs were deprived of their regular feeding after the blooming season last year, and the effect was most apparent this spring—Whiteley

Gem was among this lot. It went mostly to foliage and the few blooms that matured looked frail and were of poor texture. Bokhara bloomed in the snow March 19th, but was entirely unhurt. Vera West, on the other hand, was too far advanced when the ice storm came and half the buds were frozen and failed to bloom. By the time Monte Carlo, Kimba and Carngham came along five days later, the weather had settled and the flowers were beginning to be lovely. Carngham's foliage was hurt some, and a number of the perianths were split. Glenburn's good heavy substance made it entirely resistant to the bad season. St. Egwin has never been lovelier than this year—flowers were about five inches across on two foot stems and stayed in good condition a full two weeks. Fortune's Champion, as I said, is one of my special pets—20" stems hold those magnificent blossoms so as to look you right in the eye. The short, wide, fluted crown is almost flat against the sulphur yellow perianth, and of the most vivid flame color imaginable. The color in all the red cups was more decided this year than I ever remember before, but the hot dry sun caused some of them to fade and burn the second day out. Fortune's Champion remained vivid until the whole blossom died. The sudden heat, coming so soon after extreme cold, was a terrible strain on all the blooms. The first four or five days in April brought along Holland's Delight (substance of bloom excellent but foliage inclined to droop), Cheerio (also very heavy substance and most striking), Scarlet Elegance (color faded not at all, extremely showy flower), Havlock (a little like Carlton, but of much smoother texture), Fortune's Blaze (one of most highly colored incomparables, though not as tall or as large as most Fortune seedlings—texture ex-

ceptionally beautiful and very free flowering), Bloemlust (very clearest golden yellow throughout) and Fortune's Bowl (one of the largest incomparables, somewhat brighter than Fortune—not as smooth texture as Fortune's Blaze). Ghandi followed, and Mr. Wilson's lovely Copper Bowl, one of the few whose color was less vivid than usual this year, though the texture remained wonderful. Blooms of Casino were a bit smaller than they should have been. Fortune's Pride (a very elegant flower on tall stems, but of less spectacular coloring than the others of this type) and Border Queen (a wonderful bloomer for me, though no trace of red showed in the crowns this year) bloomed the second week in April along with Sunkist (certainly deserving of the high recommendation the growers give it—a wonderfully strong and dependable plant. The flat pure white glistening perianth and straight brilliant orange cup are lovely), Scheherazade and Red Shadow. Orange Charm and Cranborne I have lost, though both have been entirely successful for the past several springs. Among the older varieties of incomparables, Fortune, Damson, St. Ives and Killigrew I never want to be without. Fortune thrives most happily in our gardens with a minimum of care; Damson's brilliance and tall stems draw one's eye to it again and again. Carlton is another one seeming to be absolutely foolproof—a tiny bulblet left unnoticed several years ago produced a clump of ten top notch blooms this season. Arizona, Merkara and Leviathan are among the very last to blossom, all three sturdy and free blooming. Others which can be counted on are Abelard, Brightling, Red Cross, Orange Glow, Nancemond, Morea, Monte Carlo, Lucinius, Croesus, Garibaldi, Gallipoli, Helios, Hortus and Hospodar. Porth-

illy and Sonja I have lost, but a friend has clumps of as beautiful Porthilly as I ever saw, and I shall keep trying it until I get some established.

Among the 2b's, *Telopea* is the first to come and is a splendid keeper. Marion, five days later, suffered foliage damaged by the ice, but blooms were showy and stems tall as always. This makes an appealing cut flower, as does Kadina, some of which I want always to keep—it is one of the daintiest, most refined incomparables I know of, and the coloring is really distinctive—the perianth is white and the cup blooms pale lemon with a salmon edge, and after a day or so, whole cup gives the impression of being pale peach color. Coverack Perfection (a slow increaser but well worth waiting for), Avenel and Jean Hood all bloomed April 1st. I've had a great deal of trouble getting Jean Hood acclimated, but felt more than repaid by results this year—its remarkable form and contrasting colors and the fact that its head is held so high on 24" stems make it an eye catcher. It is a wonderful keeper, and the orange in the cup deepens from day to day to almost blood red. It is a real joy in any collection. Carmencita's perianth was split this spring, but I've had no such trouble with it before. Mary Longstreet has a beige tone in the perianth like no other coloring I ever saw; multiplies quite slowly. The color of Jungle Fire was particularly deep this time and the texture remained lovely and the plant strong. Bodilly has died and been replaced once and will always be with me from now on—it is of tremendous size but not coarse in the least. The broad overlapping white perianth and well proportioned deep lemon cup are in perfect balance. It is a gorgeous and imposing bloom on tall, very strong stems. If I were asked to choose a dozen favorites this

would surely be on the list. Cynric Queen was disappointing—texture was poor and petals split, though the flower usually has some distinction, I think. Sherman's good texture and conspicuous anthers make it attractive. Crusader is an old stand-by in the garden and I enjoy arrangements of it in the house. The cup had no sign of an orange rim this year. Agra, only three years in my collection, is another favorite—the perianth is wide and creamy, and the shallow gold cup is bordered deeply with vivid flame. Some of the color spreads beautifully into the perianth. It is tall, and a vigorous grower. William Pitt blooms among the very latest, a large flower with a short firm neck, a free bloomer. Brabant is later, as is Coverack Gem, a beautiful thing with broad rounded pure white perianth of remarkable texture, and a wide citron yellow crown, deeply banded in bright orange.

Central Park, of unknown origin, is attractive both because of its stems standing 6"-8" above the foliage, and because of the orange red of its expanded cup running into the perianth. It is a hardy plant. Ballet (raiser unknown) is exquisite, similar to Bodilly except that its cup is somewhat long and narrow. They have the same broad pure white perianth, but the proportion of Bodilly is somewhat better. Buoyant has been a total loss, and not worth replacing. Great Warley I can't grow, nor Milford Haven. Dick Wellband, Franciska Drake, Hades, Irene Bordoni and John Evelyn never disappoint me. Possibly John Evelyn flourishes less well than the others, but they all bloom profusely and make striking color spots here and there over my whole garden where they have been divided and replanted again and again. Jefferson Davis, Tampa, Monique show promise of joining the list of stand-bys.

All three bloom late, but withstand the heat well—Bernardino has been with me a long time and Marion Cran, Solaria, Dorine, Salemba, Tagore, Walter Hampden and Whitewell increase slowly, but give me no trouble.

My favorite among the newer Barrii are Alight, La Riente (about the most intense coloring in the lot, but not at all garish—a very free bloomer contrary to many in this division), Kilter, Blinkbonny (of magnificent texture and splendid form), Warflame, Therapia, Peggy, Eclair and Roman Star. Fleur, Lady Derby, Lady Diana Manners, Nobility, Tredore, Red Beacon and Carolina I have no success with at all. Sunstar stays healthy and multiplies rapidly. Red Gauntlet I've had for years, but it blooms very sparsely, and the texture is so poor and the cup burns so quickly that I never enjoy it. Anna Croft, tall and free flowering, has increased and been divided until there are many clumps around the entire garden. Bath's Flame, Edith, Firetail, Sunrise and Tara Rancee produce one or two blooms each spring of only fair quality. Robin Hood does beautifully, but I've never been able to understand why it is classed as a 3b. Triumphator and Mayflower flower nicely and are rapid increasers, marred only by the fact that they burn so easily. Petals of Aleppo split badly.

Veronica is by far the most unusual of my recent acquisitions among the Leedsii, and stays in good condition for twelve to fourteen days. It blooms with a broad pure white overlapping perianth and a sturdy wide heavily frilled crown of pale lemon faintly tinged with peach—as the bloom ages, the cup changes to the most extraordinary deep peach color. It is a bold flower, but not coarse. La Tendresse has always struck me with its similarity to Lovenest—the clear pink edge to

its cup makes it a most distinct flower, one of refinement and excellent substance. The large trumpet of Delaware, tinged faintly peach, is of thick velvety substance—a striking flower, but one of the more “snouty” types. Evening is one of the very latest to bloom, a beautifully formed, well balanced, all white flower, extremely dainty, though not too robust a grower. Mitylene, Eve, Betsy Penn, and Suda grow in profusion in a friend's garden, which contains a good deal of loam and receives shade for three-fourths of the day, but I cannot carry them in my soil, nor have May Molony and Queenie been successful for me. Shirley Wyness bloomed beautifully for several years, but failed to appear this last spring. Blizzard I have lost, and after working with Glenarm for several seasons, was told by a grower that it was not very vigorous and was especially subject to basal rot. Cicely I am particularly fond of, a most refined flower and a wonderful keeper, though necks seemed a bit brittle this time. White Nile cannot be beat—it is a superb plant and I hope never to be without it. Tunis I have trouble with; however, it grows in quantities in other local gardens. Daisy Schaffer, Gertie Millar, Mrs. Percy Neal, Hera and Hymettus I can count on in profusion year after year. Lord Kitchener and Mrs. R. O. Backhouse were among my initial collection, and continue to stay, though they are of less strong constitution perhaps than some. The color in Mrs. Backhouse has never been so pronounced as it was this past season and, strangely, it did not fade perceptibly. The texture of Toronto is of the best. My lack of success with Tenedos I attribute entirely to the Eastern source of my bulbs of it. The long stately stems of Silver Star I enjoy. Shackleton which I confused for a long time with

the 1b, Sir Ernest Shackleton, is little known, I believe, but quite a nice flower with an eye larger than most, banded in very brilliant flame. It is not a free bloomer. Primrose Girl has little to distinguish it, and Phyllida only its exceptional shape.

Fairy Circle belongs in every collection—its broad flat eye, which with apple green at the base and a clearly defined pink rim, makes it an outstanding flower—not as easy to grow as it might be, but seems to thrive best in partial shade and in a loose, loamy soil such as its suitable for the rock garden varieties. Emerald Eye and Samaria, both with green centers in their small crowns, are not nearly so temperamental as Fairy Circle. Green Mantle is a similar bloom which I have lost entirely, but Silver Salver is as hardy as they come. David West, one of the earliest Leedsii to bloom, is a flower of outstanding quality and distinction. I understand that its color varies with the season and locality, but mine always has an almost white perianth and a lemon colored cup very curly around the edge. With the exception of Mrs. Nette O'Melveney and Queen of the North which simply take the place, David West is about the strongest grower in this division. Mrs. Barclay and Betsy Penn both fail me, and local friends tell me they have difficulty also with them. Misty Moon (rather larger than most of this type) and Mystic are the very last to bloom. Mystic is well worth looking forward to, for it is another of the apple green centers with a pinkish orange rim, a chaste and charming flower.

I have only eight varieties of Triandrus Hybrids, and except for Queen of Spain, they have never given me a minute's trouble. Each year I enjoy quantities of the following both in the garden and for cutting: Moonshine,

Shot Silk, Thalia, White Witch, Agnes Harvey, Pearly Queen and Silver Chimes. Queen of Spain I have tried in different locations all over the garden, and have never yet produced a bloom. This fall I shall move some into the cold frame and see what happens.

Of the Cyclamineus, Beryl is by far the top of the list—its keeping qualities are exceptional. February Gold never lives up to its name. Orange Glory has little to distinguish it except its earliness—it comes in February generally, along with the Campernelles which grow rampant in nearly every Southern garden.

White Wedgewood is my favorite among the jonquils. It is not strong, but its daintiness and unusual fragrance are appealing. Hesla is old but charming, large for a jonquil and it stands a lot of exposure; a splendid keeper of the loveliest pale clear yellow. Golden Perfection, a late-comer along with General Pershing, is eye catching because of its waxy texture and tall firm stems. A wonderful grower. One of the earliest recollections of my childhood is of gathering *J. simplex* and Campernelles in my grandfather's garden in Mississippi—possibly that is why I so enjoy having them in great quantities in my own borders. Lady Hillingdon, supposed to be earlier than Golden Sceptre, always blooms later here—Golden Sceptre blossomed March 24th this year, Lady Hillingdon, two weeks afterward. Lanarth is by far the earliest for me, and usually holds some of its blooms long enough to meet Buttercup, the latest one. The foliage of Lanarth was dreadfully hurt by the ice this year, but the blossoms were never lovelier and they lasted four weeks to the day. Its name describes Buttercup perfectly—the rich butter yellow flowers are of excellent propor-

tion and texture, far superior to Golden Sceptre, I think, and a prolific bloomer. My Trevithian usually carries three flowers to a stem, and its fragrance makes it delightful to cut for the house. Orange Queen blooms very early, but is of very little distinction. I'd never order it again. Golden Goblet, supposedly a strong grower, I have lost, but shall certainly replace—its very broad perianth and much expanded trumpet are outstanding, and it is recommended for its durability and great substance. I feel sure it must have succumbed to the field mice which inhabit the nearby woods, and which, unlike the moles, are very fond of daffodils. Since I practically never see signs of basal rot or other disease in my bulbs, I conclude that all those which accountably disappear have been destroyed by the field mice.

One of the handsomest varieties in the Poetaz division is Normandy, raiser unknown, but a most imposing flower with three or four heads of waxy texture to each tall, stiff stem. It is a prolific bloomer and looks lovely along with L'Innocence, Admiration, Abundance and the most floriferous of all, Geranium. I especially like the citron yellow color of Xerxes and the color and graceful form of Red Guard—they both make excellent garden plants and are ideal for arrangements. They bloom very freely as do all in this class except possibly Klondyke. Scarlet Gem and Mrs. Alfred Pearson I've had two years and have not seen bloom, but La Fiancee, La Argentina, Medusa (wonderful stems and texture) and St. Agnes are top notch performers. I've often heard complaints about the shortness of Glorious' stems, but mine have always been tall and balance the flowers so gracefully. Glorious is the only daffodil I know of which will readjust itself after being cut and placed in

water, that happy faculty which is so admirable in other cut flowers such as Petunias and Snap Dragons. Every country garden in this section of the State has Laurens Koster blooming in great profusion—it must surely be one more which loves the heavy red clay soil. Orange Cup is another variety with the yellow perianth and brilliant orange rim to its cup, a very showy color combination. It is a mass of flowers when in full bloom, four to seven heads to a stem. Irmelin, too, is bright and showy, and is the very last of the Poetaz, in fact it and Alcida always wind up the daffodil season for me—when all other varieties are over and past, these two show up and give me one last taste of a lovely season which passes all too quickly. I almost forgot to say how much pleasure I invariably get watching Winter Pride from its very first green shoot, because buds and foliage always break ground together—it is snow white with an orange-yellow cup and very free flowering, four or five heads to a stem. All in this class withstand the hot days splendidly, retaining both their color and their substance exceptionally well.

The Poeticus, on the contrary, lasted a distressingly short time this year—they began to burn and droop almost the second day after maturing. The effect of the dry wind and warm days immediately after severe cold, with no tempering season between, was more perceptible in the Poeticus than in any other class. The good substance and texture of Actaea held up best of the lot, but Edwina, Recurvus, Snow King and Glory were drooping almost as soon as they developed fully. Eagle, coming into bloom late, held its color well and remained delicate and dainty for nearly a week. Dixie Beauty, another late one, is a splendid keeper both as to substance and color.

The only Doubles I've ever had that I care about are Cheerfulness, Daphne and the little *J. flore pleno*. Until I saw Van Sion I claimed I'd never known any flower I thought was ugly. I have Indian Chief, Twink, Valencia, Royal Sovereign and The Pearl, but would never reorder any of them.

In division 11, *Bulbocodium conspicuus* grows here in every garden where there are any daffodils. *Canaliculatus* is a good grower and free bloom-

er where I have it planted in part shade and well mulched with woods earth. *Bulbocodium citrinus* and W. P. Milner, planted under similar conditions, refuse to bloom for me and I know of no one around here who has been successful with them. I've seen *Triandrus albus* in bloom only once in South Carolina, and I was told that it never bore flowers after that year and disappeared entirely in a season or so. *Spartanburg*, *South Carolina*.

New Daffodils

In presenting the series of photographs that follow, it was the sole thought of the editor to record for the readers of the Magazine, the types of flowers that are being produced in breeder's gardens abroad, many of which are types not yet represented here. It is recognized that probably all of the varieties illustrated will present even better appearance when they have lived longer under American conditions and have made their adjustments to the different soil and climate. In spite of the handicap of first flowering, it will be apparent to any one that there is a refinement in form, an excellence in carriage that cannot be denied. It is not possible more than to suggest the beauty and clarity of the colorings and no one could guess the tender quality

of the pink that marks Lisbreen and Wild Rose. He can see, however, how far the breeders have come in the production of pinks from the irregular perianths that we associate with such old standard varieties as Mrs. R. O. Backhouse and Lovenest to mention the two most commonly grown.

It is not impossible that the exhibitor for shows in early 1949 may look at these pictures and find some standard that will assist him in choosing the blooms that he will show, even if they are none of these sorts. One cannot escape from arriving at a clearer and clearer ideal of what the show flower should be, if one will study the flowers or their photographs of varieties that have the qualities of show perfection.



Robert L. Taylor

Narcissus, Broughshane



Robert L. Taylor

Narcissus, Samite



Robert L. Taylor

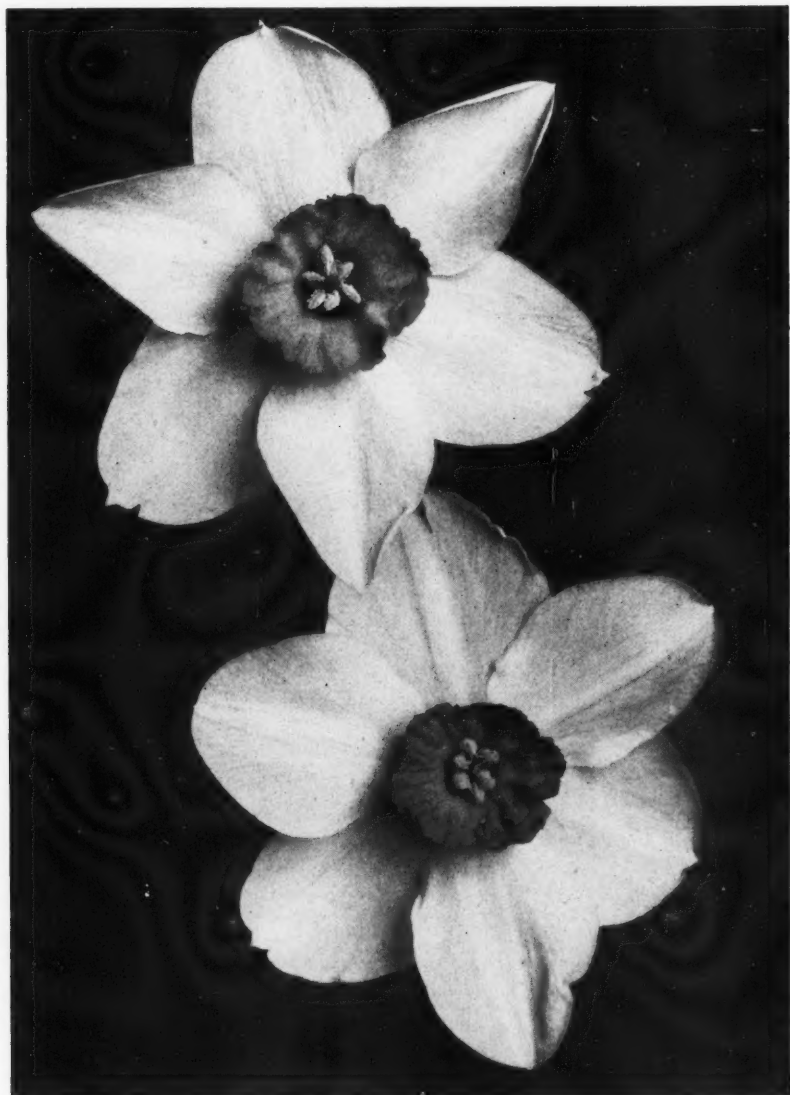
Narcissus, Cantatrice, (upper)

Content, (lower)



Robert L. Taylor

Narcissus, St. Bride



Robert L. Taylor

Narcissus, Red Hackle (upper)

Scandal (lower)



Robert L. Taylor

Narcissus, Conbeg (upper two)

Red Hackle (lower right)



Robert L. Taylor

Narcissus 'Chunking'



Robert L. Taylor

Narcissus, Fire Guard



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Narcissus, Tinker



Robert L. Taylor

Narcissus, Wild Rose



Robert L. Taylor

Narcissus, Lisbreen



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Narcissus, Tinsel



Robert L. Taylor

Narcissus, Frigid



Robert L. Taylor

Narcissus, Foggy Dew

A Snapdragon Appears

LESTER ROWNTREE

Last June the world of Californian wild flower fans was rocked by the announcement, in the San Francisco *Chronicle* of the sudden appearance of *Antirrhinum ovatum*. Botanists left their desks and gardeners their plots to scurry over to the treeless area called Carrizo Plains, a torrid, breezeless region in eastern San Luis Obispo county.

The snapdragon had concentrated itself on two acres of dark, alkaline, clay soil, which was heavy, slithering mud when the antirrhinum seed was sprouting during unusually late spring rains following the winter's drought, but in June when the annual was in flower, the ground was dry, cracked and peeling on top. The plant was the dominant one of its area, its only companions being a few nicotines, plagiobothrys and eremocarpus. All the snapdragons were leaning to the east, not in groups but spaced evenly, each individual a foot or two from its neighbor, after the manner of desert plants. The multitude covered a hill on the lower side of the narrow earth road and was stopped at the bottom of the slope by a place of seepage, splashed green with grass and white with alkaline deposits. On the upper side of the road it followed for a short distance a bare and narrow draw.

The plants are hairy and from six inches to a foot high and the open throated flowers suggest those of a small foxglove. The buds are yellow, looking rather like those of *Penstemon heterophyllus*. The flower, three-quarters of an inch long, has an erect, pink upper lip blotched at the base with crimson and the sulphur-yellow

lower lip is spotted with the same color. Some plants were simple, many had branches, and the spaces on the stems between the dull gray-green hairy leaves shot out short bare, axillary substems which looked like tendrils that had changed their minds and gone stiff. Each ended up with a tiny green pad, not important enough to be a leaf but trying hard to be one. The native *Antirrhinum coulterianum* carries similar affairs on its stems though they are pliable and frankly used for climbing.

When, early in August, I went to Carrizo Plains for seed of *Antirrhinum*, the rye and wheat had been cut and the rolling land was honey colored with stubble. Golden lines lay on the fields, where machines had left their mark. The drought had become too much for the last of the buds and flowers and they had dried on their stems, turning a dull pink, and the host stood crisply on its barren slope like a small army frozen in its tracks.

It is hard for me to believe that, as the paper stated, this annual had not put in an appearance between 1902, when Alice Eastwood, of the Museum of Natural Sciences in San Francisco's Golden Gate Park, discovered it and 1948 when a local rancher sent in the report of the flowering. Surely a few seeds must have found some springs to their liking and sprouted, the plants flowered inconspicuously, the pods ripened and shed. It is known that on the deserts of the southwest seed may remain latent for almost a quarter of a century waiting for the time when the acceptable period combines with the

amount of rain to please germination. Last April and May downpours must have delighted *Antirrhinum ovatum*, surprising it into action and the unusual display could not help but attract the attention of passing ranchmen.

I imagine that this fall's crop of horticultural magazines will carry several outbursts on the mullish little snap-

dragon and I hope to learn more about it from the vouchsafings of other observers. The spring of 1948 will go down in the annals of wild flower addicts as the spring of *Antirrhinum ovatum*. It is incidents such as the unexpected outburst of this flower that spice the lives of those who pry into the goings-on of plants.

A Book or Two

Ornamental Cherries. Collingwood Ingram. Country Life Ltd., London; Charles Scribner's Sons, New York, 1948. 259 pages, illustrated. 30 shillings.

Having studied ornamental cherries for twenty-seven years, growing many of this on his own estate, and with the further advantage of extensive travels in Japan and elsewhere, Mr. Ingram is particularly well qualified as an authority in this most interesting field. A pleasant informal style, with many personal experiences and a wealth of detail add definitely to the usefulness of the book. The nearly 40 half-tone illustrations are fair to very good, but the 8 colored plates, from original watercolors by the author, have suffered in the reproduction.

The book is divided into three parts: (1) General, (2) Wild Species and their Varieties, and (3) The Sato Zakura, or Horticultural Varieties of Japanese Cherries.

In Part I the Author gives some excellent advice on where to grow cherries. "The sloping bank of a stream or lake" is wisely recommended as an ideal spot, especially if the slope faces the south or southwest. For landscaping, the author prefers single-flowered cherries of one species only for a given location.

The detailed notes on propagation,

planting, diseases and pests, history and folklore are excellent; the chapter on dwarfing cherries has a certain fascination, but here the impatient American probably would prefer merely to read about it.

When it comes to the nomenclature of the cultivated ornamental cherries, the author shows clearly that he has devoted much time and thought to this very thorny question. His plan of lumping most of the cultivated Japanese cherries under one specific name (*Prunus serrulata* Lindl.) is certainly the most satisfactory one to follow. However, the practice of adopting Latin names for the many horticultural forms of the cultivated ornamental cherries seems as unnecessary and inadvisable as manufacturing Latin names for the diverse varieties of, for example, the sweet cherry or common apple. Furthermore, in Part III, The Sato Zakura, the author does not indicate definitely whether his trinomials are, botanically, forms or varieties.

Part II, The Wild Species and Their Varieties, take up 120 pages in which nearly 70 species or varieties of *Prunus* are described and discussed, sometimes at length with very interesting personal observations. This is certainly a valuable contribution to our horticultural knowledge of a number of little-known species of *Prunus*.

The last 50 pages, constituting Part III, are taken up with the so-called Japanese Flowering Cherries, including a general key to groups, based on the color of the flowers, the color of the young foliage, and the degree of doubleness of the flowers. Here again the author's personal observations on the nearly 60 garden forms included in this section are not only very useful but also highly interesting.

PAUL RUSSELL

Wild Flower Guide. Edgar T. Wherry, Doubleday and Company, Inc., Garden City, N. Y., 1948. 202 pages, illustrated in color and black and white. \$3.00.

This volume is designed for the Northeastern and Midland United States only, and is written by Dr. Wherry who is capable of being as abstruse as any of the elect but who has for this volume addressed himself in the most simple of language to the "lower strata" of plant lovers. His excellent prose is ably supplemented by the charming drawings and paintings of Tabea Hofmann most of which do not smell of the herbarium.

This is infinitely better than the usual "flower guide" and while it will make a certain claim on the intelligence of the user, it will take him so much further than any similar book that he will not mind in the least. The author had to make his own decisions as to what should or should not be included. There are always those who will be cautious about what is in and what is out. The reviewer has no quibbles. His only comment is that if there were no drawings it would be quite impossible in most cases to conjure up a visual image of the plant, unless one almost knew it any way. This is not peculiar to this text, but is a very common botanist's affliction.

The Insect Guide. Ralph B. Swain, Doubleday and Company, Inc., Garden City, N. Y., 1948. 261 pages, illustrated in color and black and white. \$3.00.

The underlying pattern of this book is precisely the same as that of the book reviewed above, but the field is wider and the material has been treated in a fashion that will bring the amateur reader to a more fundamental understanding of the Insect World, than the other book attempts or plans. The illustrations in the book are much better of their kind than those of the Wherry book, and having made scientific drawings in both fields the reviewer refuses to pull his punch!

The ordinary gardener should read this particular volume with pleasure since his usual contact with insect life has been in the field of slaughter, first that of his plants by the insects and then his own campaign against the creatures! Here the insects are presented in their own rights and should be looked at with the same wonder and pleasure that we consider for any part of Nature. Whether or not the gardener will care, perhaps will depend entirely on his own philosophy!

Small Fruit Culture. James Sheldon Shoemaker, The Blakiston Company, Philadelphia, Pa., 1948. 434 pages, illustrated. \$4.00.

This is a second edition of a well-known and valued earlier volume, that has suffered from the usual necessities of being brought up to date, a process that must be applied to any over-all work in any field. The author keeps a happy line between the purely didactic and that type of writing that must be informative without sounding like a college lecture.

Azaleas, Kinds and Culture. H. Harold Hume, The Macmillan Company,

1948. 199 pages, illustrated, color and black and white. \$3.75.

This is the outgrowth of the very useful but brief section on azaleas in an earlier volume by Dr. Hume. The expansions are all excellent but one could wish that Dr. Hume had looked still further in the field of literature than he has. His searching in the ancient volumes is good; the review of more recent literature is very poor, since there are still recommended various procedures that are no longer in use in any up-to-date establishment. The most shining example is in the discussion of sowing of seed. Any one who follows the advice given which was excellent for twenty years ago, is now hopelessly behind the times and making for himself as much extra work and inviting loss, as if he were a beginner.

The inventories of varieties in trade are not complete, too much emphasis is laid upon some historical lists, descriptions are inadequate, and no reference is made to the many misspellings that are preserved in Southern writings and trade catalogues, the most flagrant being among the Indian azaleas.

The color illustrations are no more than adequate and the black and white illustrations are open to the serious criticism that they are not at any scale that would be comparable. There is no need that all illustrations should be at one scale, but the pictures of named clones should be taken at one scale for comparison. *Rhododendron mucronatum* on page 88 should be on the same scale as all the varieties that precede and follow it, and this is not the case.

The rest of the material is very good and very sound. We personally hope that the book will be immediately out-of-print and that Dr. Hume will re-

write it so that it can be all the things claimed for it on the dust jacket, which it definitely is not at the present time.

The Story of Plants. John Asch. G. B. Putnam's Sons, New York, 1948. 407 pages, illustrated. \$5.00.

Doubtless it is inevitable that the plant kingdom should have to be written up in simple language for the uninitiated and while it has been treated by various authors from directions other than that followed by Mr. Asch, there doubtless will be still others who will offer their own particular brands of watered-down information.

This is very pleasantly written, with lucidity and not too much of the listen-my-children air. The illustrations are definitely below the usual Hofmann level.

The Earth's Face and Human Destiny. Ehrenfried Pfeiffer. Rodale Press, Emaus, Pa., 1947. 193 pages, illustrated. \$2.75.

As is the case with most of the propaganda books that come from this press, the present volume is rather over full of assertions, a practice that makes for an unpleasant reading style. This is unfortunate since the arguments that are brought forward are in the cause of proper soil management for which there can be no question of doubt. There is no question but that the way to make progress with the less intelligent masses is to say the same thing over and over again until they finally think that they have always thought it themselves. So the book with its Cassandra-like overtones is well worth while, though it would be jolly if the propaganda were not so obvious.

As just for a passing snicker, the reviewer and several others would like to know how any author could be so bold as to continue to talk about Human Destiny.

The Healthy Hunzas. J. I. Rodale. Rodale Press, Emaus, Pa., 1948. 263 pages, illustrated. \$2.75.

Another version of the same general program with emphasis laid on a small section of Northwest India and a people who have health. The jacket says that they are civilized. In the present age, this is a bold statement and there is nothing at all in the text that would move the reviewer to want to live like the Hunzas. He will hunt his health (which incidentally is remarkably sound) in some simpler fashion and will continue to study civilization, with an open mind, not "slanted" toward the Hunzas. The book shows all or nearly all of the usual concepts of the Organic Gardening set, part of which should be taken very seriously and part of which should be smiled at openly and frankly.

The Iris: An Ideal Hardy Perennial.

Written and published by members of the American Iris Society. Nashville, Tenn., 1947. 224 pages, illustrated.

This is a popular text written by members for other members and for such persons who might become converts to the Iris disease by having read it. In it are mixed in pleasant and painless proportions historical data, descriptive notes, elements of genetics, plant physiology as related to iris, notes on insects and diseases and all the other usual data that will contribute to your becoming a fully equipped iris expert, whether in the production of additional new seedlings of which there are already floods, a hack writer, or an accredited judge. It really is a very nice book, even if the back is stiff and ugly and the slick pages have a tendency to fall out.

Roses for Every Garden. R. C. Allen. M. Barrows and Company, Inc.,

New York, 1948. 218 pages, illustrated. \$3.50.

This again is a book intended for the general public, well enough conceived so that old hands will still be pleased and quite simple enough so that persons coming to the subject will not be frightened away. The organization is excellent and the writing pleasant and delightfully lucid. The illustrations are clear, to the point and aside from the rather unpleasant color plates nicely done. By all means throw away the older manuals and get this one.

Farm Soils. Edmund L. Worthen. John Wiley and Sons, Inc., New York, 1948. Fourth Edition. 510 pages, illustrated.

This is presented in the form that we usually associate with textbooks. As such it can and does present in compact and well organized form a much greater amount of data than could a more discursive text. Its very virtues are its greatest detractions, for in filling the volume to the limit with the useful information, the authors have sacrificed the style of writing that would make it a "best seller." One certainly would not want it to be made into a best seller, at present no compliment, but the general gardener should be warned that he will have to use this book as it was meant to be used, in dead seriousness. Try it!

New Design of Small Properties. M. E. Bottomley. The Macmillan Company, New York, N. Y., 1948. 174 pages, illustrated. \$3.75.

Prof. Bottomley's former volume was useful for many years and still presents much of what the beginner should know in coming to an understanding of the field occupied by the professional. This volume is more provocative than its predecessor but it will remain to be

seen whether or not it will remain as sound. The designs that are brought together as modern, meaning in this case, of the time, are often quite capricious. Thank God for caprice, but this reviewer is by no means certain that he would like to live with the capricious, stabilized into permanent form as it must be in a garden. The author puts up a good argument for many of his points, but some are certainly open to wide discussion. What could be better in a book, than a text that will lead to argument, particularly if it is a book concerned with any phase of creative work.

The Pruning Book: Fruit Trees and Ornamentals. Gustav L. Wittrock. Rodale Press, Emaus, Pa., 1948. 172 pages, illustrated. \$3.00.

A small volume full of interesting details and discussions not only of pruning itself but of other related matters. The range of plant materials discussed is wide and indeed includes some species that probably will never be met in this country. Advice is generally on the conservative side, perhaps due to the fact that opinions change from time to time as to the very best methods for specific trees, according to the part of the country and the type of production desired. The drawings are clear but usually quite poor as the feeble line used in delineation is not even suggestive of the plant's vigorous growth. The photographs are inclined to stress human interest rather than pertinent detail.

Flowers In Colour. Edited by J. F. Ch. Dix and Walter Roozen, revised and with Foreword by W. E. Shewell Cooper. Oxford University Press, New York, N. Y., 1948. 164 pages, 120 color plates. \$10.00.

This is a book that is built up about

the illustrations most of which are beautiful as engravings in color; whether or not they are accurate it would be difficult to say since they are essentially the "newer" things to be found in nurseries in the Netherlands. Not all are of local origin as one finds British narcissi among them. For the American reader the text is perhaps of very little interest, but the plants illustrated will certainly intrigue his interest and sharpen his vision. He will not like all of them nor even care about all of them for some are not new and some are of no use here save in very limited geographical areas. The book, as a book, however, is a delightful thing.

Northern Nut Growers Association, Inc. Annual Report 1947. 130 pages, illustrated. Printed for members of the Association.

This well-printed volume contained the reports for the Annual Meeting, held Sept. 3-5, 1947 at Guelph, Ontario, Canada, together with reports of discussions of the papers presented, and such other papers as the Secretary and Editor have brought together. All types of nut trees were discussed and papers from scientific, commercial and amateur levels were presented. As should be expected they vary in the value of the contents, but all put together give the impression of the liveliest interest within the group and of the keen intent of bringing the production of nut trees to the attention of all intelligent horticulturists. The reviewer looks with particular admiration at the wide geographic spread that is given.

The Association numbers many members in our own Society and readers are urged to join this association and get the full benefit of the work that this group is carrying on so actively and well.

